

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Keisha Douglas

Timestamp: [year=2009; month=3; day=27; hr=15; min=54; sec=44; ms=907; ]

=====

Application No: 10727000 Version No: 4.0

**Input Set:****Output Set:**

**Started:** 2009-03-04 16:08:24.069  
**Finished:** 2009-03-04 16:08:25.240  
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 171 ms  
**Total Warnings:** 19  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 20  
**Actual SeqID Count:** 20

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)



# SEQUENCE LISTING

<110> Ribaudó and Shields

<120> B2 Microglobulin Fusion Proteins and High Affinity  
Variants

<130> 67022

<140> 10727000

<141> 2003-12-02

<150> 09/719,243

<151> 2001-03-19

<150> PCT/US99/12309

<151> 1999-06-03

<150> 60/088,813

<151> 1998-06-10

<160> 20

<170> PatentIn Ver. 2.0

<210> 1

<211> 119

<212> PRT

<213> Homo sapiens

<400> 1

Met	Ser	Arg	Ser	Val	Ala	Leu	Ala	Val	Leu	Ala	Leu	Leu	Ser	Leu	Ser
1				5					10					15	

Gly	Leu	Glu	Ala	Ile	Gln	Arg	Thr	Pro	Lys	Ile	Gln	Val	Tyr	Ser	Arg
			20					25					30		

His	Pro	Ala	Glu	Asn	Gly	Lys	Ser	Asn	Phe	Leu	Asn	Cys	Tyr	Val	Ser
		35					40					45			

Gly	Phe	His	Pro	Ser	Asp	Ile	Glu	Val	Asp	Leu	Leu	Lys	Asn	Gly	Glu
	50					55					60				

Arg	Ile	Glu	Lys	Val	Glu	His	Ser	Asp	Leu	Ser	Phe	Ser	Lys	Asp	Trp
65					70					75				80	

Ser	Phe	Tyr	Leu	Leu	Tyr	Tyr	Thr	Glu	Phe	Thr	Pro	Thr	Glu	Lys	Asp
			85						90					95	

Glu	Tyr	Ala	Cys	Arg	Val	Asn	His	Val	Thr	Leu	Ser	Gln	Pro	Lys	Ile
			100					105					110		

Val	Lys	Trp	Asp	Arg	Asp	Met
			115			

<210> 2

<211> 339

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: fusion protein

<400> 2

Met Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr Ala Tyr Leu  
1 5 10 15

Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser Glu Leu Val  
20 25 30

Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu His Tyr Leu  
35 40 45

Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu Gly Arg Thr  
50 55 60

Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn Val Gln Ile  
65 70 75 80

Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys Pro Pro Thr  
85 90 95

Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser Val Ile Ala  
100 105 110

Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val Thr Gly Asn  
115 120 125

Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His Pro Lys Pro  
130 135 140

Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu Tyr Gly Asp  
145 150 155 160

Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe Ser Ile Ser  
165 170 175

Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His Met Thr Val  
180 185 190

Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser Lys Pro Leu  
195 200 205

Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp Ala Ser Thr  
210 215 220

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Ala Ser  
225 230 235 240

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu  
245 250 255

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro

260	265	270
Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys		
275	280	285
Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu		
290	295	300
Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys		
305	310	315 320
Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp		
325	330	335
Arg Asp Met		

<210> 3  
 <211> 358  
 <212> PRT  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: fusion protein

<400> 3

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
1 5 10 15
Gly Leu Glu Ala Val Ser Val Glu Thr Gln Ala Tyr Phe Asn Gly Thr
20 25 30
Ala Tyr Leu Pro Cys Pro Phe Thr Lys Ala Gln Asn Ile Ser Leu Ser
35 40 45
Glu Leu Val Val Phe Trp Gln Asp Gln Gln Lys Leu Val Leu Tyr Glu
50 55 60
His Tyr Leu Gly Thr Glu Lys Leu Asp Ser Val Asn Ala Lys Tyr Leu
65 70 75 80
Gly Arg Thr Ser Phe Asp Arg Asn Asn Trp Thr Leu Arg Leu His Asn
85 90 95
Val Gln Ile Lys Asp Met Gly Ser Tyr Asp Cys Phe Ile Gln Lys Lys
100 105 110
Pro Pro Thr Gly Ser Ile Ile Leu Gln Gln Thr Leu Thr Glu Leu Ser
115 120 125
Val Ile Ala Asn Phe Ser Glu Pro Glu Ile Lys Leu Ala Gln Asn Val
130 135 140
Thr Gly Asn Ser Gly Ile Asn Leu Thr Cys Thr Ser Lys Gln Gly His
145 150 155 160

Pro Lys Pro Lys Lys Met Tyr Phe Leu Ile Thr Asn Ser Thr Asn Glu  
 165 170 175  
 Tyr Gly Asp Asn Met Gln Ile Ser Gln Asp Asn Val Thr Glu Leu Phe  
 180 185 190  
 Ser Ile Ser Asn Ser Leu Ser Leu Ser Phe Pro Asp Gly Val Trp His  
 195 200 205  
 Met Thr Val Val Cys Val Leu Glu Thr Glu Ser Met Lys Ile Ser Ser  
 210 215 220  
 Lys Pro Leu Asn Phe Thr Gln Glu Phe Pro Ser Pro Gln Thr Tyr Trp  
 225 230 235 240  
 Ala Ser Thr Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly  
 245 250 255  
 Gly Ala Ser Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His  
 260 265 270  
 Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly  
 275 280 285  
 Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg  
 290 295 300  
 Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser  
 305 310 315 320  
 Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu  
 325 330 335  
 Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val  
 340 345 350  
 Lys Trp Asp Arg Asp Met  
 355

<210> 4  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: primer

<400> 4  
 ttcttcagca aggactgggc ttcc

24

<210> 5  
 <211> 24  
 <212> DNA  
 <213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: primer

<400> 5  
attttcagca aggactgggc tttc 24

<210> 6  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 6  
gtgttcagca aggactgggc tttc 24

<210> 7  
<211> 24  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: antisense primer

<400> 7  
taagtctgaa tgctccactt tttc 24

<210> 8  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: primer

<400> 8  
agggtaccat ggtttccgtg gagacgcaag c 31

<210> 9  
<211> 40  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: reverse primer

<400> 9  
tcgaattcat gatgctagcc caatacgttt gaggagatgg 40

<210> 10  
<211> 99  
<212> PRT  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence: Modified hB2m  
S55V



<400> 10

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu  
1 5 10 15

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro  
20 25 30

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys  
35 40 45

Val Glu His Ser Asp Leu Val Phe Ser Lys Asp Trp Ser Phe Tyr Leu  
50 55 60

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys  
65 70 75 80

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp  
85 90 95

Arg Asp Met

<210> 11

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: linker that  
can be used in fusion proteins

<400> 11

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser  
1 5 10 15

<210> 12

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: linker that  
can be used in fusion proteins

<400> 12

Gly Gly Gly Ala Ser  
1 5

<210> 13

<211> 21

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 13

Lys Tyr Leu Leu Pro Thr Ala Ala Ala Gly Leu Leu Leu Leu Ala Ala  
1 5 10 15

Gln Pro Ala Met Ala  
20

<210> 14

<211> 20

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: signal peptide

<400> 14

Met Arg Ala Lys Leu Leu Gly Ile Val Leu Thr Pro Ile Ala Ile Ser  
1 5 10 15

Phe Ala Ser Thr  
20

<210> 15

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: c-myc tag

<400> 15

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu Asn  
1 5 10

<210> 16

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: ornithine  
decarboxylase 309-317

<400> 16

Ser Ser Glu Gln Thr Phe Met Tyr Tyr  
1 5

<210> 17

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HTLV TAX 11-19

<400> 17

Leu Leu Phe Gly Tyr Pro Val Tyr Val  
1 5

<210> 18

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: HIV gag 77-85

<400> 18

Ser Leu Tyr Asn Thr Val Ala Thr Leu  
1 5

<210> 19

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: pn2a.A3

<400> 19

Lys Leu Tyr Glu Lys Val Tyr Thr Tyr Lys  
1 5 10

<210> 20

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: influenza NP  
265-273

<400> 20

Ile Leu Arg Gly Ser Val Ala His Lys  
1 5